REMARKS

Claims 1-29 were pending in the present application. Claims 1 and 14 have been amended to clarify claimed subject matter and/or correct informalities. Support may be found at least at pages 3, 5, 6, 12, 13, and Figure 4. No new matter has been introduced by these amendments.

Claims 1-29 are for consideration upon entry of the present Amendment. Applicant requests favorable consideration of this response and allowance of the subject application based on the following remarks.

Telephone Call to the Office

Applicant called the Office on November 13, 2006 inquiring about the rejection of the claims under Claim Rejections 35 U.S.C. §112, second paragraph.

Applicant cited MPEP §2173.01 to the Office, that Applicant may use any style of expression and 'that' is permissible in the claims. The Office requested that the proposed legal argument be presented in writing to overcome the rejection.

Claim Rejections 35 U.S.C. §112

Claims 1, 2, 4, 8, 10, 11, 14, 16, 18-22, 24, and 25 stand rejected under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. In particular, the Office states "that" is a pronoun and is not permitted in the claim (Office Action, page 2).

Applicant respectfully disagrees. According to MPEP §2173.01, Applicant may use functional language, alternative expressions, negative limitations, or any style of expression or format of claim which makes clear the boundaries of the subject matter for which protection is sought. According to Merriam Webster Dictionary, the word 'that' is a demonstrative pronoun and definite article (http://www.m-w.com/dictionary/that). That may be used to indicate the kind or thing specified as follows. Claim 1 recites in part, "receiving an input that includes hierarchical data". Therefore, these claims comply with 35 U.S.C. §112, second paragraph as 'that' used in the claims makes clear the boundaries of the subject matter, and as a result the rejection is moot.

Claim Rejections 35 U.S.C. §101

Claims 1-13 and 25-29 stand rejected under 35 U.S.C. §101 as being allegedly directed to non-statutory subject matter. Applicant respectfully disagrees with the Office.

Claims 1-10:

In setting forth a ground of rejection, the Office states in part,

> "claim has non functional descriptive material that provide the necessary functional and structural interrelationship to satisfy §101, no practical application for abstract idea for managing order document data,......... present as abstract idea."

To clarify the definition of method, Applicant directs the Office to MPEP §2106.Iv.2ii:

> A claim is limited to a practical application when the method, as claimed, produces a concrete, tangible and useful result; i.e., the method recites a step or act of producing something that is concrete, tangible and useful.

Nevertheless, in the interest of expediting prosecution of the application, and without conceding the propriety of the rejection, Applicant amended Claim 1 to further

clarify features of Applicant's subject matter. Dependent Claims 2-10 depend from Claim 1 and thus are depending from a statutory subject matter base claim. The rejection is moot.

Claims 11-13 and 25-29:

Claim 11 recites in part: "A filter tree data structure stored on one or more computer-readable media".

Claim 25 recites in part: "One or more computer-readable media containing computer-executable instructions that, when executed on a computer, perform the following steps".

In setting forth a ground of rejection, the Office states:

"computer-readable medium, includes modulated signal, such as a carrier wave or other transport mechanism......A claimed signal has no physical structure, does not itself perform any useful, concrete and tangible result, and does not fit within the definition of a machine."

To clarify the definition of computer-readable medium, Applicant directs the Office to pages 24-25 of the original Specification, which are reproduced below:

> **Computer-readable media** can be any available media that can be accessed by computer 600 and includes both volatile and nonvolatile media, removable and non-removable media. By way of example, and not limitation, <u>computer-readable media may comprise computer storage media</u> and communication media. "Computer storage media" includes volatile and nonvolatile, removable and non-removable media implemented in any method or technology for storage of information such as computer-readable instructions, data structures, program modules, or other data.

Applicant respectfully submits that Claims 11-13 and 25-29 comply with 35 U.S.C. §101 and are directed to statutory subject matter. This rejection is moot.

Claim Rejections 35 U.S.C. §102

Claims 11-13 are rejected under 35 U.S.C. §102(e) as being anticipated by U.S. Patent Publication No. 2004/0177150 to Kogan. Applicant respectfully traverses this rejection. Anticipation under §102 requires that each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference (MPEP §2131).

Independent Claim 11 recites:

> A filter tree data structure stored on one ore more computer-readable media, comprising:
> a first level having a root node that corresponds to an initial segment of hierarchical data;
> at least one intermediate level having at least an intermediate node that corresponds to an intermediate segment of the hierarchical data, the intermediate node being subordinate to the root node;
> a bottom level having at least a bottom level node that corresponds to a final segment of the hierarchical data, the bottom level node being subordinate to an intermediate node; and
> wherein at least one node is an active node that references an instruction set that is executed when an input is received that includes the segment corresponding to the active node and segments corresponding to all nodes superior to the active node.

Kogan does not disclose features of Claim 11

Kogan is directed to matching attributes of the information with filter arrays, by conducting a search with a binary tree algorithm (Abstract). A particular array from each one of the database filters is arranged to form the nodes of a BST ([0028]).

First, the Office states that the recited "a filter tree data structure stored on one or more computer-readable media, comprising a first level having a root noted that corresponds to an initial segment of hierarchical data" is disclosed by Kogan (Office Action, page 4). Applicant respectfully disagrees. Kogan is directed to a binary sort tree (BST) starting with a

root node, **from the root node**, up to two pointers may point <u>diagonally downwards into a</u> <u>first level</u> ([0020]). The root nodes of the two BST have an **"any" digit** ([0057] and Figure 2). "Any" digit is a designation within an array, <u>replacing any missing elements</u> within a particular part of an array or in all of it, so that any element could be inserted in the particular part of the array or in all of it ([0053]). Kogan does not describe a filter tree data structure. Thus, Kogan does not disclose expressly or inherently "a filter tree data structure stored on one or more computer-readable media, comprising a first level having a root node that corresponds to an initial segment of hierarchical data," as recited in Claim 11.

Second, the Office states that the recited "wherein at least one node is an active node that references an instruction set that is executed when an input is received that includes the segment corresponding to the active node and segments corresponding to all nodes superior to the active node", is disclosed by Kogan. Applicant respectfully disagrees. Kogan is directed to a communications network having a multi-staged data filter system for selecting and matching filters to the information flow (Abstract). The filter handles information flow by matching attributes with filter arrays (Abstract). This evidence does not disclose expressly or inherently "wherein at least one node is an active node that references an instruction set that is executed when an input is received that includes the segment corresponding to the active node and segments corresponding to all nodes superior to the active node", as recited in Claim 11.

The evidence is insufficient to support a prima facie anticipation rejection of the claimed subject matter. Consequently, Applicant respectfully submits that Claim 11 is not anticipated by Kogan and requests that the §102 rejection be withdrawn.

Dependent Claims 12-13 depend from Claim 11 and are allowable by virtue of this dependency, as well as for the additional features that they recite that, in combination with those recited in Claim 11, are not disclosed by Kogan.

Claim Rejections under 35 U.S.C. §103

A. Claims 1-8, 14-25, 28, and 29 stand rejected under 35 U.S.C. §103(a) as being obvious over U.S. Patent Publication No. 2004/0177150 to Kogan in view of U.S. Patent No. 6,781,961 to Gunsay. Applicant respectfully traverses the rejection. To establish a *prima facie case* of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations (see, MPEP §2142).

Independent Claim 1 recites:

A method, comprising:

receiving an input that includes hierarchical data;

traversing a filter tree according to segments of the hierarchical data to locate one or more matching nodes that correspond to the hierarchical data;

comparing at least a portion of the input to one or more filters associated with the matching nodes; and

executing instructions associated with one or more filters satisfied by the input.

Applicant submits that the evidence relied upon by the Office does not support the rejections made under 35 U.S.C. §103(a). Applicant asserts that Kogan and Gunsay fail to disclose, teach or suggest at least receiving an input that includes hierarchical data, as recited in Claim 1.

Kogan Does Not Disclose, Teach or Suggest receiving an input that includes hierarchical data; traversing a filter tree..........correspond to the hierarchical data.

First, Kogan does not disclose, teach or suggest "receiving an input that includes hierarchical data", as recited in Claim 1. The Office states Kogan does not disclose receiving an input that includes hierarchical data (Office Action, page 5). Applicant agrees with this assessment.

Second, Kogan does not teach or suggest "traversing a filter tree according to segments of the <u>hierarchical data</u> to locate one or more matching nodes that correspond to the <u>hierarchical data</u>", as recited in Claim 1. The Office is inconsistent as it states Kogan does not disclose receiving an input that includes hierarchical data. Therefore, Applicant asserts it would not be possible for Kogan to disclose traversing a filter tree according to segments of the <u>hierarchical data</u>, if Kogan does not disclose receiving an input that includes hierarchical data. In order for Kogan to traverse a filter tree according to segments of the hierarchical data, Kogan should receive an input that includes hierarchical data, which should occur <u>prior</u> to traversing a filter tree. Applicant fails to understand the Office's reasoning on how Kogan can traverse the filter tree according to hierarchical data without receiving an input that includes hierarchical data. While Applicant considers the merits of the Office's evidence and reasoning, Applicant respectfully requests clarification.

Thus, the evidence shows Kogan does not disclose expressly or inherently, teach or suggest "receiving an input that includes hierarchical data, traversing a filter tree according to segments of the hierarchical data to locate one or more matching nodes that correspond to the hierarchical data", as recited in Claim 1. Consequently, Applicant respectfully submits that Claim 1 is not anticipated, taught or suggested by Kogan and requests that the §103 rejection be withdrawn.

Gunsay Does Not Teach or Suggest receiving an input that includes hierarchical data

First, the Office states Kogan does not disclose receiving an input that includes hierarchical data (Office Action, page 5). Applicant agrees with this assessment.

However, Gunsay fails to remedy the deficiencies in Kogan. First, Gunsay is directed to routing electronic messages for communications (Abstract). The interest data may be made up of an interest mask and an interest value (col. 4, line 66 to col 5, line 2). This evidence is insufficient to support a prima facie case of obviousness of the features recited in Claim 1.

Second, the Office has failed to establish a motivation sufficient for one of ordinary skill in the art to combine Kogan and Gunsay. The motivation provided by the Office "for routing electronic messages in a tree structure such that input message may be propagated down one or more branches of the tree structure to arrive at any terminal nodes of the tree having a value that describes the input message providing extremely organized in the filtering" is not well reasoned. Kogan uses a binary sort tree scheme for the designation and fast retrieval of binary arrays, so there is no reason to combine Kogan and

Gunsay. Also, the motivation given by the Office does not address why this specific proposed modification would have been obvious.

As Kogan and Gunsay do not disclose, teach or suggest all the claim features, alone or in combination, Applicant submits that Claim 1 is allowable over the cited references.

Independent Claim 14 has been amended to recite features similar to Claim 1.

Independent Claims 11, 14, 21, and 25 recite features similar to Claim 1, and hence benefits from the arguments directed above to Claim 1. Applicant respectfully requests withdrawal of the §103 rejections.

Dependent Claims 2-8, 15-20, and 22-24, 28, and 29 depend directly or indirectly from Claim 1 and thus are allowable as depending from an allowable base claim. These claims are also allowable for their own recited features that, in combination with those recited in Claim 1, are not disclosed by Kogan or Gunsay. Applicant respectfully requests withdrawal of the §103 rejections.

B. Claims 9, 10, 26, and 27 stand rejected under 35 U.S.C. §103(a) as being obvious over U.S. Patent Publication No. 2004/0177150 to Kogan in view of U.S. Patent No. 6,781,961 to Gunsay and further in view of U.S. Patent Publication No. 2004/000752 to Chan. Applicant respectfully traverses the rejection.

Dependent Claims 9, 10, and 26, and 27 depend directly or indirectly from one of independent Claims 1 and 25, which were discussed above. Applicant submits that Chan does not teach what is missing from Kogan and Gunsay to support a §103 rejection. The Office states that Chan teaches identifying the hierarchical data contained in the

input; and parsing the hierarchical data into segments for use with matching based on the cited portions. However, Applicant does not find evidence of "hierarchical data contained in the input and parsing the hierarchical data" sufficient to support a prima facie case under §103. More specifically, Applicant submits that the evidence does not teach identifying the hierarchical data contained in the input; and parsing the hierarchical data into segments for use with matching as recited in Claim 9.

Furthermore, the Office has failed to establish a motivation sufficient for one of ordinary skill in the art to combine Kogan and Gunsay with Chan. The motivation provided by the Office "to detect matching substrings in the XML documents ad iterates, for each of the matching substrings through all instances of the matching substrings in document data tree to determine whether the matching substrings are non-redundant" is not well reasoned. Kogan uses a binary sort tree scheme to match filters to the information flow and Gunsay routes messages by matching the interest data. Thus, there is no motivation to combine the references. This rejection is improper. Applicant requests the §103 rejection be withdrawn.

Independent Claim 25 recites features similar to Claim 1, and hence benefits from the arguments directed above to Claim 1. Applicant respectfully requests withdrawal of the §103 rejections.

Dependent Claims 9, 10, and 26, and 27 depend directly or indirectly from one of independent Claims 1 and 25. These dependent claims are allowable by virtue of this dependency, as well as for the additional features that they recite that, when taken together with those of Claims 1 and 25 define methods not disclosed, taught or suggested by

Kogan, Gunsay, or Chan. Applicant respectfully requests withdrawal of the §103 rejections.

Conclusion

Claims **1-29** are in condition for allowance. Applicant respectfully requests reconsideration and prompt allowance of the subject application. If any issue remains unresolved that would prevent allowance of this case, the Office is requested to contact the undersigned attorney to resolve the issue.

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